

**COUNTY OF SAN LUIS OBISPO BOARD OF SUPERVISORS
AGENDA ITEM TRANSMITTAL**

(1) DEPARTMENT Planning and Building	(2) MEETING DATE 2/14/2012	(3) CONTACT/PHONE James Caruso, Senior Planner/(805) 781-5702	
(4) SUBJECT Report on Energy Policy and Program Implementation			
(5) RECOMMENDED ACTION That the Board of Supervisors: <div style="margin-left: 20px;"> 1. Direct that staff continue to implement ongoing programs, 2. Further direct staff to return to the Board for specific authorizations to start implementation of the greenhouse gas reduction measures recommended in this report, 3. Direct applicable County departments to review their operations and practices to identify energy efficiencies and report back to the Board as to measures that can be taken to increase energy efficiency and greenhouse gas (GHG) reduction in County operations. </div>			
(6) FUNDING SOURCE(S) N/A	(7) CURRENT YEAR FINANCIAL IMPACT \$0.00	(8) ANNUAL FINANCIAL IMPACT \$0.00	(9) BUDGETED? Yes
(10) AGENDA PLACEMENT <input type="checkbox"/> Consent <input type="checkbox"/> Presentation (Time Est. _____) <input type="checkbox"/> Hearing (Time Est. _____) <input checked="" type="checkbox"/> Board Business			
(11) EXECUTED DOCUMENTS <input type="checkbox"/> Resolutions <input type="checkbox"/> Contracts <input type="checkbox"/> Ordinances <input checked="" type="checkbox"/> N/A		(12) BUDGET ADJUSTMENT REQUIRED? BAR ID Number: <input type="checkbox"/> 4/5th's Vote Required <input checked="" type="checkbox"/> N/A	
(13) OUTLINE AGREEMENT REQUISITION NUMBER (OAR) N/A		(14) W-9 <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
(15) LOCATION MAP N/A	(16) BUSINESS IMPACT STATEMENT? Yes	(17) AGENDA ITEM HISTORY <input type="checkbox"/> N/A Date _November 22, 2011	
(18) ADMINISTRATIVE OFFICE REVIEW			
(19) SUPERVISOR DISTRICT(S) All Districts -			

County of San Luis Obispo



TO: Board of Supervisors

FROM: Planning and Building / James Caruso, Senior Planner

VIA: Chuck Stevenson, AICP, Long Range Planning Division Manager

DATE: 2/14/2012

SUBJECT: Report on Energy Policy and Program Implementation

RECOMMENDATION

That the Board of Supervisors:

1. Direct that staff continue to implement ongoing programs,
2. Further direct staff to return to the Board for specific authorizations to start implementation of the greenhouse gas reduction measures recommended in this report,
3. Direct applicable County departments to review their operations and practices to identify energy efficiencies and report back to the Board as to measures that can be taken to increase energy efficiency and greenhouse gas (GHG) reduction in County operations.

DISCUSSION

Purpose of Report

In November 2011, your Board adopted the EnergyWise Plan and directed staff to return with recommendations to begin implementation of the Plan's GHG reduction measures. Accordingly, this report recommends implementation of energy efficiency and GHG reduction measures identified in the EnergyWise Plan. These measures will enable the unincorporated county to meet its target for reducing GHG emissions, consistent with AB 32, while reducing the region's contribution to global warming and increasing the use of renewable energy sources.

Policy Background

The EnergyWise Plan was developed through a robust and engaging broad-based, stakeholder-oriented process over a period of 18 months. The EnergyWise Plan contains specific energy efficiency and other GHG reduction measures for both communitywide activities and County operations to help the unincorporated county reach its GHG reduction target of 15% below baseline levels by the year 2020. The Plan contains a wide range of strategies to reduce GHG emissions from energy use, waste disposal, transportation, and agriculture, with an emphasis on improving energy efficiency and expanding local renewable energy sources. Many of the measures and their supporting actions are taken from the Conservation and Open Space Element (COSE) and the Land Use Element, both of which address energy issues.

Current County Operations Activities

Many County departments have already implemented energy efficiency and conservation measures in their operations and practices.

The following highlights some energy efficiency efforts by the County:

Public Works Department

Attachment 2 contains a summary of energy savings from Public Works Department operations since 2007.

- Installed LED traffic lights
- Installed LED streetlights
- Installed high efficiency pumps at Lopez and Nacimiento
- Recycle pavement grindings
- Implemented Complete Streets practice
- Solar powered traffic advisory signs
- Implemented tiered water rates to encourage conservation

General Services Agency

Please see Attachment 3 for more information on energy savings in County facilities.

- Started zero-waste golf course operations at Dairy Creek
- Retrofitted outdoor lighting at County facilities
- Retrofitted indoor lighting at County facilities
- Retrofitted HVAC systems at County facilities

Reaching the 15% Target of the EnergyWise Plan

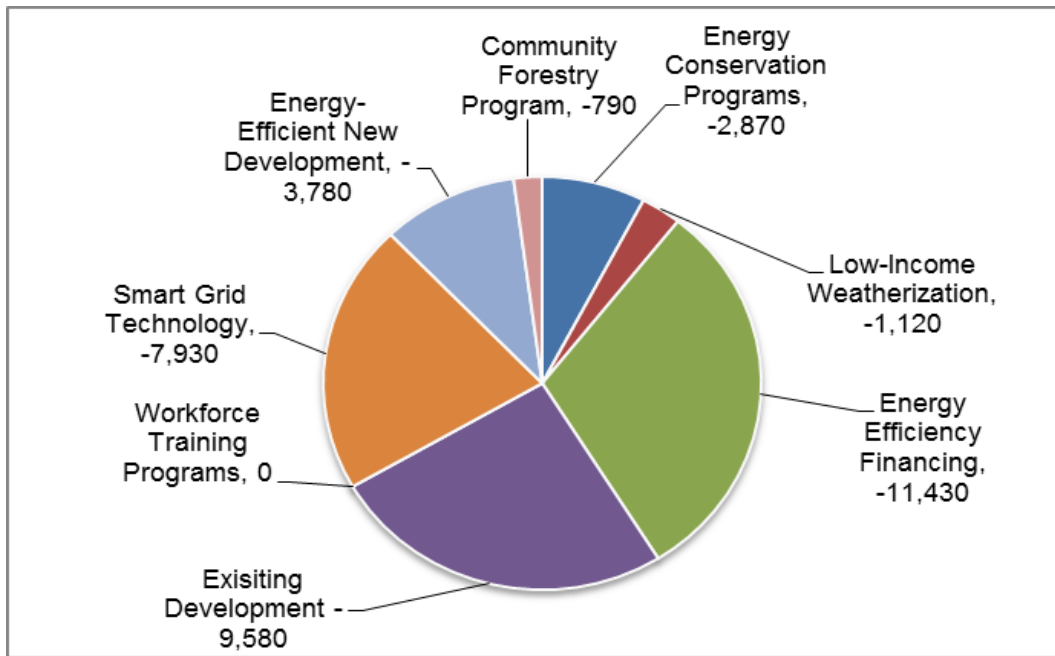
In order to meet the 15% GHG reduction target by the year 2020 set in the EnergyWise Plan, the majority of the 39 communitywide measures from the Plan will have to be implemented. Those measures could achieve about 98% of the total GHG reductions needed to meet the 15% reduction target (not including reductions resulting from State actions). About 2% of the total GHG reductions could come from County operations.

It is important to recognize that the successful implementation of many community wide measures will rely on voluntary actions and decisions by citizens and business operators in the County. In terms of County staff participation in implementing communitywide measures, current funding allows for only a few new programs to be started annually, along with continuation of other ongoing activities such as the Land Use and Circulation Element update, implementation of the Paso Robles Groundwater Resource Capacity Study, and the San Miguel Community Plan.

It is important to note that many activities identified in these measures have already taken place or are on-going. The status of on-going activities is summarized in Attachment 1. This report recommends beginning additional implementation measures based on an analysis of the feasibility of each measure that includes its costs and benefits.

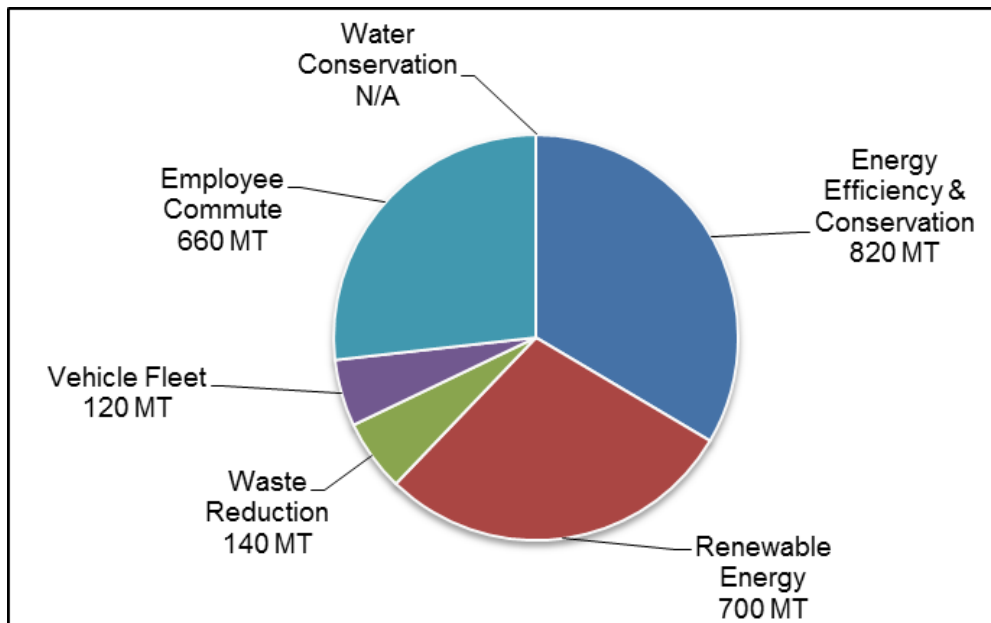
The following pie chart depicts the expected GHG reductions through energy efficiency and conservation programs in each sector in order to reach the 15% reduction target. This target could likely be reached through a three-phase program to implement the 39 reduction measures described in the following section.

Communitywide GHG Reductions



County operations are also expected to increase in energy efficiency and reduce GHG emissions. County operations account for less than 2% of total communitywide emissions. County departments will be coming to your Board during budget hearings to authorize continued energy efficiency programs.

County Operations GHG Reductions



Phasing

In order to achieve a 15% GHG reduction over baseline level by 2020, staff proposes that communitywide GHG emissions reductions be implemented in three phases over the next eight years. The first phase would consist of measures that are:

- Already being implemented through an existing County program
- Already being implemented through a partner (e.g. CAPSLO, utilities)
- New programs that emphasize lower costs and higher benefits (see the following sections in this report titled *Feasibility* and *Phase 1 Recommended Measures*)

The second phase would include new programs such as:

- Increasing energy efficiency in new development
- Encouraging installation of commercial and small-scale renewable energy projects
- Evaluating development of a Community Choice Aggregation program
- Expanding the use and availability of low carbon fuels

The third phase would complete the programs and would include such measures as:

- Increasing diversion of solid waste, recycling and other strategies to reduce methane emissions from landfills
- Expanding water conservation efforts programs
- Revise parking requirements and offer more alternative transportation choices

The measures in the later phases generally would require the County partnering with other agencies and stakeholders.

Feasibility

In assessing which programs should be implemented in this first phase, focus is placed on higher-benefit and lower-cost programs. A feasibility tool has been developed as part of the EnergyWise Plan that rates each measure's cost, benefit and difficulty in implementation. The feasibility tool can also assign separate weights for costs, benefits and implementation.

The Benefit score is based on six factors:

1. Annual GHG reductions
2. Annual resource savings
3. Annual government savings (\$)
4. Annual community savings (\$)
5. Potential co-benefits
6. Support for other measures/policies

The Cost score is based on seven factors:

1. Government capital costs
2. Additional annual government operating costs
3. Program duration
4. Additional staff time required (estimated FTEs)
5. Funding opportunities for government implementation
6. Additional costs to the community
7. Rebates, grants or incentives available to the community

The Implementation score is based on seven factors:

1. Implementation start timeframe
2. Need for additional public outreach
3. Need for code revisions or new regulations
4. Need for support from local or regional agencies
5. Implements local government policies
6. Implements regional or State policies
7. Technology is available and cost competitive

Staff has reviewed each of the supporting actions in the EnergyWise Plan's recommended GHG reduction measures to evaluate which actions should be implemented in this first phase. Those recommended measures are listed in the following section, together with a feasibility summary table showing a benefit/cost score. The benefit/cost scores are on a scale of 1-5, with higher numbers representing more benefits and less cost. Implementation is weighted at 0% at this time, so that only costs and benefits are reflected in the total score. The feasibility tables also list the required commitment of staff resources and estimated GHG reductions for each measure. Staff resources are estimated using ranges of full time equivalents (FTE) until work programs are prepared for each measure. Following the feasibility tables for each recommended measure in Phase 1 is a summary table showing the scores, GHG reductions and staff resources needed for the measures.

Attachment 4, prepared in connection with the EnergyWise Plan, contains a summary table of the costs and benefits of all 39 measures recommended in the Plan. In that table, the implementation scores are weighed into the final feasibility scores.

Phase 1 Recommended Measures

Measure 1 – Energy Conservation Programs

This measure seeks to create energy conservation education and outreach campaigns. Supporting actions include creating a centralized web portal, developing comparative community energy efficiency programs, and promoting development of a wide range of energy efficiency and renewable energy sources.

Feasibility Summary

	Total Category Score	Category Weighted Score	Overall Measure Weight	Total Measure Score	Yearly GHG Reductions (MTCO ₂ e/yr)	Staffing
Benefits	16	2.7	50%	1.3	2,870	Less than 1 FTE
Costs	25	3.6	50%	1.8		
Implementation	22	3.1	0%	0.0		
TOTAL	63	9.4	100%	3.1		

Measure 3 – Energy Efficiency Financing – The County, as well as other counties and cities in the state, is part of Energy Upgrade California that offers a variety of financing and rebate programs for residential and non-residential building owners. The County should increase its participation in supporting and promoting financing that becomes available.

Feasibility Summary

	Total Category Score	Category Weighted Score	Overall Measure Weight	Total Measure Score	Yearly GHG Reductions (MTCO ₂ e/yr)	Staffing
Benefits	21	3.5	50%	1.8	11,430	1-3 FTE
Costs	24	3.4	50%	1.7		
Implementation	25	3.6	0%	0.0		
TOTAL	70	10.5	100%	3.5		

Measure 4 – Energy Efficiency in Existing Buildings – Energy use in existing buildings represents one of the largest energy sectors. The EnergyWise Plan seeks a substantial part of total GHG reductions from this measure. Actions should include:

1. Seek a possible source of subsidies to reduce the cost of energy audits for existing commercial, and eventually, residential development.
2. Provide previous year's energy use for commercial buildings.
3. Develop options for an energy conservation ordinance.

Feasibility Summary

	Total Category Score	Category Weighted Score	Overall Measure Weight	Total Measure Score	Yearly GHG Reductions (MTCO2e/yr)	Staffing
Benefits	17	2.8	50%	1.4	9,580	1-3 FTE
Costs	23	3.3	50%	1.6		
Implementation	19	2.7	0%	0.0		
TOTAL	59	8.8	100%	3.1		

Measure 8 - Community Forestry - This measure calls for a robust program of tree planting (and maintenance) in county-maintained roads, medians, and public parking lots and on open space lands. The program can also be used as a way to provide mitigation for development impacts to native trees.

Feasibility Summary

	Total Category Score	Category Weighted Score	Overall Measure Weight	Total Measure Score	Yearly GHG Reductions (MTCO2e/yr)	Staffing
Benefits	12	2.0	50%	1.0	790	Less than 1 FTE
Costs	23	3.3	50%	1.6		
Implementation	27	3.9	0%	0.0		
TOTAL	62	9.1	100%	2.6		

Measure 9 – Countywide Energy Collaborative – This measure seeks to expand the successful EnergyWatch partnership program, direct-install programs and energy assessments.

Feasibility Summary

	Total Category Score	Category Weighted Score	Overall Measure Weight	Total Measure Score	Yearly GHG Reductions (MTCO2e/yr)	Staffing
Benefits	16	2.7	50%	1.3	0-20,680	1-3 FTE
Costs	20	2.9	50%	1.4		
Implementation	17	2.4	0%	0.0		
TOTAL	53	8.0	100%	2.8		

Feasibility Summary, Phase 1

	Total Measure Score	Yearly GHG Reductions (MTCO2e/yr)	Staffing
Measure 1: Energy Conservation Programs	3.1	2870	< 1 FTE
Measure 3: Energy Efficiency Financing	3.5	11,430	1-3 FTE
Measure 4: Energy Efficiency in Existing Buildings	3.1	9580	1-3 FTE
Measure 8: Community Forestry	2.6	790	< 1 FTE
Measure 9: Countywide Energy Collaborative	2.8	0-20,680	1-3 FTE
TOTAL		24,670 45,350	4 - 11 FTE

Status of the RESCO Project

The Renewable Energy Secure Community (RESCO) project is a California Energy Commission grant-funded project being prepared by a consultant that should be complete by the end of March 2012. The deliverables of the project include a history of energy development in the County; characterization, inventory, and potential of over a dozen energy resources; and identification of specific sites or geographic areas that have real potential for renewable energy resource development. The RESCO report should be used to help implement such measures as evaluating development of a Community Choice Aggregation program, encouraging installation of commercial and small-scale renewable energy projects, and protection of renewable energy resources.

OTHER AGENCY INVOLVEMENT/IMPACT

The County established an Energy Team to coordinate implementation of energy efficiency measures. The Energy Team was consulted in the preparation of this report. The team consists of Department heads and/or key staff from the Public Works Department, General Services Agency, County Administrative Office, and Planning and Building Department. The Energy Team was also involved in preparing Chapter 6 of the EnergyWise Plan regarding County operations.

BUSINESS IMPACT STATEMENT

Business impact statements will be prepared and included in the report for specific authorization to begin implementation as outlined in the recommendation section of this report.

FINANCIAL CONSIDERATIONS

Implementation of the programs in the EnergyWise Plan would involve varying costs to the County, but those costs would need to be weighed against potential County savings. The feasibility tables in this report and the summary table in Attachment 4 show ranges of estimated County costs for the recommended GHG reduction measures.

RESULTS

Implementation of the recommended measures would increase energy efficiency throughout the county and reduce GHG emissions. By the year 2020, GHG emissions for the unincorporated county should meet the reduction target established in the EnergyWise Plan of 15% below the 2006 baseline (an approximate 138,000 MT reduction). This would reduce the region's contribution to global warming consistent with AB 32 and would increase the use of renewable energy sources.

ATTACHMENTS

- Attachment 1 - Status of EnergyWise Plan Measures
- Attachment 2 - Energy Savings since 2007 (Public Works Facilities)
- Attachment 3 - Energy Saving Programs (County Facilities)
- Attachment 4 - Summary of EnergyWise Plan Measure Feasibility